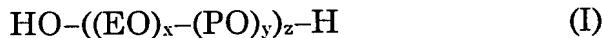


WHAT IS CLAIMED IS:

1. A cleaning agent for a semiconductor device containing a hydroxide, water and a compound expressed in the following general formula (I) and/or the following general formula (II):



5 where EO represents an oxyethylene group, PO represents an oxypropylene group, x and y represent integers satisfying $x/(x + y) = 0.05$ to 0.4, and z represents a positive integer.



10 where EO, PO, x, y and z are defined identically to EO, PO, x, y and z in the general formula (I), R represents a residue of alcohol or amine excluding a hydroxyl group or a hydrogen atom of an amino group, and m represents an integer of at least 1.

2. The cleaning agent for a semiconductor device in accordance with claim 1, wherein said hydroxide includes ammonium hydroxide.

3. The cleaning agent for a semiconductor device in accordance with claim 1, wherein said hydroxide is selected from a group consisting of tetramethylammonium hydroxide, a hydroxide of potassium and a hydroxide of sodium.

4. The cleaning agent for a semiconductor device in accordance with claim 1, wherein the concentration of said hydroxide contained in said cleaning agent is 0.01 percent by weight to 31 percent by weight.

5. The cleaning agent for a semiconductor device in accordance with claim 1, wherein the mean molecular weight of the total of said oxypropylene group in said compound expressed in the general formula (I) or (II) is 500 to 5000.

6. The cleaning agent for a semiconductor device in accordance with

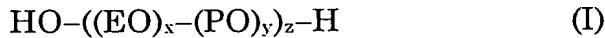
claim 1, wherein the weight ratio of said compound expressed in the general formula (I) and/or the general formula (II) to said hydroxide is (0.3 $\times 10^{-4}$ to 1):1.

7. The cleaning agent for a semiconductor device in accordance with claim 1, wherein the pH of said cleaning agent is at least 8.

8. The cleaning agent for a semiconductor device in accordance with claim 1, further containing not more than 1 percent by weight of hydrogen peroxide.

9. A method of fabricating a semiconductor device, comprising:
a first step of preparing a semiconductor substrate completely subjected to dry etching; and

5 a second step of cleaning the surface of said semiconductor substrate with a cleaning agent containing a hydroxide, water and a compound expressed in the following general formula (I) and/or the following general formula (II):



10 where EO represents an oxyethylene group, PO represents an oxypropylene group, x and y represent integers satisfying $x/(x + y) = 0.05$ to 0.4, and z represents a positive integer.



15 where EO, PO, x, y and z are defined identically to EO, PO, x, y and z in the general formula (I), R represents a residue of alcohol or amine excluding a hydroxyl group or a hydrogen atom of an amino group, and m represents an integer of at least 1.

10. The method of fabricating a semiconductor device in accordance with claim 9, wherein said first step includes steps of:

performing said dry etching with a resist pattern, and
removing said resist pattern by ashing.

11. The method of fabricating a semiconductor device in accordance with claim 9, wherein said first step includes a step of exposing a metal film containing tungsten and/or a silicon material on said semiconductor substrate by said dry etching.

12. The method of fabricating a semiconductor device in accordance with claim 9, wherein said first step includes steps of:

5 forming a wiring pattern containing polysilicon and tungsten on said semiconductor substrate by said dry etching employing a resist pattern, and

removing said resist pattern.

13. The method of fabricating a semiconductor device in accordance with claim 9, wherein said first step includes steps of:

5 forming a wiring pattern containing tungsten on said semiconductor substrate,

forming an insulator film on said wiring pattern,

forming a connection hole in said insulator film by said dry etching employing a resist pattern, and

removing said resist pattern.

14. The method of fabricating a semiconductor device in accordance with claim 9, wherein said first step includes steps of:

5 forming at least two types of silicon oxide insulator films on said semiconductor substrate, and

performing said dry etching on said two types of silicon oxide insulator films.

15. The method of fabricating a semiconductor device in accordance with claim 9, wherein said cleaning is performed by setting the liquid temperature of said cleaning agent to 20°C to 65°C, and

dipping said semiconductor substrate in said cleaning agent.

16. The method of fabricating a semiconductor device in accordance with claim 9, wherein said cleaning is performed by setting the liquid temperature of said cleaning agent to 20°C to 65°C, and spraying said cleaning agent to said semiconductor substrate.

17. The method of fabricating a semiconductor device in accordance with claim 9, wherein said cleaning is performed by introducing ultrasonic waves into said semiconductor substrate.